

At the time of receiving the specimens, a brief reference to Horn's synoptic table showed clearly that the only possible previously described species to which they could be referred was *conjungens* Horn. A difference of some four hundred miles in habitat is practically a guarantee of specific distinctness in this genus, but as *conjungens* was not represented in my collection I thought best to wait until I could compare with the type of the latter before going further. This I had the satisfaction of doing this past summer, and although the two forms are closely allied, I believe them to be quite distinct. As for the differences: First of all, *conjungens* is a black species, and *badia* is brown. All three examples of the latter are alike, and the color is in no way due to immaturity. *Badia* is sensibly larger—length 26–28.5 mm., *conjungens* 23 mm. The antennæ are of the same type, but the lamella of the fifth joint is nearly as long as those immediately following in *conjungens*, distinctly shorter in *badia*. In *badia* the thorax is hairy at the middle in front, in *conjungens* it is entirely destitute of hairs. The punctures of the flattened and impressed antero-medial area are more conspicuously coarser than those of the rest of the surface in *badia*, and the geminate striæ of the elytra are feebly defined; in *conjungens* the geminate striæ are quite distinct.

It is of interest to note that the point on the Mt. Wilson trail where *badia* was found is scarcely five miles west of the little cañon in which *P. australis* was discovered a few years ago. These two species by their antennal differences belong to different sections of the genus.

SYNOPSIS OF THE SPECIES OF ARTHROMACRA.

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In the fall of 1915, Mr. Wm. T. Davis and I spent a week in Washington, making daily visits to the U. S. National Museum and learning more from our intercourse with Mr. E. A. Schwarz and Mr. H. S. Barber than can readily be prepared for publication. The following remarks will however record one of the subjects that was thus brought out.

In consequence of the description of *Arthromacra robinsoni*¹ Mr. Schwarz called my attention to certain specimens in the U. S. National Museum remarkable for their vestiture of long thin hairs, collected by the late Hugo Soltau at Nashville, Tenn., which evidently represent a new species. In searching for additional material I found one more of the Nashville specimens in the Joutel collection, and representatives of still another new species in the American Museum, collected by Wm. Beutenmüller in the mountains of North Carolina. The remarkable elongation of the last joint of the male antennæ, characteristic of the Lagriidæ, is to be seen in these new species, varying in degree with each as in the species of the allied genus *Statira*; and variations in color, in the punctuation of the pronotum, and in the relative length and width accompany the more obvious characters first mentioned. It is interesting to note that the genus *Arthromacra*, widely distributed and known in our northern regions by the species *aenea* should have three species and two varieties near its southern limit as shown by the following synopsis.

Synopsis of the Species of Arthromacra.

Upper surface glabrous.

Thorax distantly punctate; color brilliant green; last joint antennæ ♂ as long as six preceding joints combined; 11 mm.; Va. . . . ROBINSONI.

Thorax confluent punctate; color aeneous bronzed; last joint antennæ ♂ as long as three preceding joints combined; 12-14 mm.; N. E. U. S. and Can. AENEA.

Elytra with a few long, thin hairs.

Thorax coarsely, confluent punctate; color bright green above, abdomen bronzed, tibiæ and tarsi testaceous; antennæ ♂ unknown; 10-11 mm.; Mts. of Va. and N. C. APPALACHIANA.

Upper surface of thorax and elytra clothed with long, thin hairs.

Thorax coarsely punctate; color greenish or greenish coppery bronzed; abdomen darker, tibiæ and tarsi pale; last joint antennæ ♂ as long as five preceding joints combined; 11-12 mm.; Tenn. PILOSELLA.

A. ROBINSONI Leng, Journ. N. Y. Ent. Soc., XXII, 1914, p. 285, fig. a, b.

Since recent studies have disclosed the presence of elytral hairs in two species of the genus I have reexamined my series of *robinsoni* and find in some specimens a few hairs near the apex of the elytra, not enough to cause any confusion with *appalach-*

¹ Journal N. Y. Ent. Soc., XXII, 1914, p. 285.

iana. The latter moreover differs in the closer punctuation of the pronotum as well as in the male antennæ.

A. AENEÆ Say. Lang's Exped., II, 1824, p. 287; Horn, Trans. Am. Ent. Soc., XV, 1888, p. 28; Blatchley, Beetles of Indiana, 1910, p. 1284.

?*donacioides* Kirby, Fauna Bor. Am., IV, 1837, p. 239.

var. *glabricollis* Blatchley, l. c., p. 1285, fig. 570.

var. *rugosecollis* Leng, l. c., p. 287.

This species extends over Canada and our northern states from the Atlantic region to Minnesota and, in the mountains, it reaches Georgia. The thorax becomes less rugosè in the variety *glabricollis*, described from Indiana, to which I refer with some doubt a specimen in the U. S. Nat. Mus. from Missouri, in which the legs are entirely red. Further collections from that region may show this to be representative of still another variety. In the variety *rugosecollis*, described from the mountains of Georgia, the greatest length, as well as the greatest development of the transverse rugæ of the pronotum, is attained.

A. appalachiana n. sp.

Slender, parallel, slightly broader behind, shining green above, darker green beneath, abdomen bronzed, antennæ, tibiæ and tarsi testaceous. Antennæ ♀ with the last joint as long as the three preceding joints combined (♂ unknown); head coarsely, confluent punctate, thorax similarly punctate, both glabrous; elytra also coarsely, confluent punctate and with a few long, black, hairs. Beneath the surface is nearly impunctate, shining, except the closely punctate sidepieces of mesosternum.

Length, 10 to 11 mm.

Type in U. S. N. M. collection from Pennington Gap, Va., June 30 (Hubbard and Schwarz). Other specimens collected by Wm. Beutenmüller, Graybeard Mt., N. C., June 25, and Black Mts., N. C., June 20, are in Am. Mus. Coll. and my own.

A. pilosella n. sp.

Elongate, subcylindrical, slightly broader behind, greenish or greenish coppery bronzed, shining, antennæ, tibiæ and tarsi pale testaceous, abdomen dark bronzed. Upper surface of thorax and elytra clothed with long thin, dark hairs. Head and thorax coarsely punctate, punctures somewhat irregular towards base of

thorax, elytra rugosely confluent punctate, body beneath equally shining, coarsely punctate, except abdomen, and thorax beneath. Antennæ ♂ with last joint about as long as the five preceding joints combined; ♀ with last joint about as long as the three preceding joints combined.

Length, 11 to 12 mm.

Types in U. S. N. M. collected at Nashville, Tenn., June 20 (H. Soltau); other specimens from the same locality and from Frankfort, Ky., May 7 (H. Soltau), are in the U. S. N. M., the Am. Mus. N. H., and my own collection.

A NEW SPECIES OF TINGID FROM NEW YORK.

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Corythaica is a genus described by Stål to contain *Tingis monacha*, from Rio Janeiro, Brazil, described by him in 1860. At present it contains several species, all from tropical or subtropical regions. Van Duzee does not record any species from the United States, and it is interesting to present one from as far North as New York.

Corythaica bellula, n. sp. Hood curving downward over head, white with black keel down the middle, flanked by a single row of cells on each side, becoming two posteriorly; broad and rounded posteriorly; nervures dark (brown to black); keel of hood continuous with median keel of thorax, which is higher. Eyes globose, black. Antennæ thin, not as long as head and prothorax together; joint 3 longest, thinnest; joint 4 next in length, stoutest, fusiform, thickly set with setæ; joint 1 and 2 shortest, 1 stouter and longer than 2, nearly as stout as joint 4. Rostral groove closed anteriorly, walls interrupted at anterior coxæ, widest at posterior. Rostrum reaching posterior coxæ; joint 1 not visible, 2 longest, thin; 3 and 4 stoutest, subequal, apparently somewhat flattened, 4 black toward tip.

Prothorax tumid anteriorly, produced in a point posteriorly and covering scutellum, tricarinate, carinæ nearly parallel, median slightly higher; a median transverse groove before the middle; deeply punctured, punctures merging into cells in the posterior flattened part; explanate lateral margin extending from the anterior two-thirds of thorax, narrow, much reflexed, nearly erect, with a single row of areoles, white, nervures concolorous. Pleuræ reticulated to coxæ. Legs of nearly equal length, all femora slightly incrassate, tibiæ slender, both unarmed; coxæ large, globose.